

REMARKS

Reconsideration of this application, in view of the foregoing amendments and the following remarks, is respectfully requested.

Claim Rejections under 35 USC §103

Claim 1, and 2, are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton et al. (US 6662024) (hereinafter Walton) in view of Van Bokhorst et al. (hereinafter Bokhorst). Applicants respectfully traverse these rejections.

There are three basic criteria to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). First, there must be some suggestion or motivation in the cited references to modify or combine their teachings; second, there must be reasonable expectation of success; and third, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. §2142. As to claim 1, the combination of cited references does not teach or suggest all the claim limitations.

The Examiner has stated that Walton et al. disclose “an algorithm for calculating a transmission power consumption of the data transmission for the stations (Col 26, lines 66-67 – Col 27, lines 1-2)” (Emphasis added). Applicants respectfully point to the Examiner that first, claim 1 recites calculating receiving power consumption and not the transmission power consumption. Second, in the cited sections, Walton et al. does not disclose calculating transmission power consumption. In contrast, Walton et al. describes Channel State Information (CSI) for each transmission channel, which is actually described in column 5, lines 36-58. The CSI describes the condition of a particular channel based on the signal power, interference power of various interfering devices, and the power of noise on the channel (SNR value). The CSI helps the base station determine the best channel condition for a maximum throughput of data for target terminal(s).

In fact, Walton actually teaches away from what is recited in claim 1. Claim 1 recites prioritizing transmission based on the receiving power consumption and in contrast, Walton et al.

describes determining a best metrics for the best throughput for a given channel or sub-channel. To achieve maximum throughput on a given channel, Walton et al. must overcome the noise and interference on the given channel, which means that Walton et al. must use signal power that is at least higher than the noise to obtain a better SNR for maximum throughput. Thus, if Walton et al., determines a channel condition such that with maximum allowable power it can achieve a maximum data rate, then indeed Walton et al. teaches to use the maximum allowable power to overcome CSI and get the best data rate for the channel.

Further, Walton et al.'s focus is on finding a best combination of channels such that a maximum data rate can be achieved during scheduled transmission. Nowhere in the cited sections Walton et al. describes or even mentions considering the receiving power consumption of terminals. Thus, Walton et al. does not teach, describe, or even suggest using receiving power consumption as criteria for prioritizing transmission. Accordingly, claim 1 is clearly and patentably distinguishable from the combination of cited references.

Claim 2 depends from claim 1 and is patentably distinguishable from the combination of cited references for at least the same reasons as claim 1. Further, the Examiner has state that "Van Bokhorst discloses the system of claim 1, wherein the access point is configured to generate a TSPEC element comprising a PS interval for specifying a timing offset relative to the current transmission (Col 6, lines 1-8)." (Emphasis added). Applicants respectfully point to the Examiner that a careful reading of the cited section reveals that Van Bokhorst does not even describe what is recited in claim 2. In the cited sections, Van Bokhorst actually describes various TIM frames transmitted by the access point 16 with reference to figure 6. Neither of the TIM frames contains a PS element specifying a timing offset as recited in claim 2. These TIM messages indicate which station is to receive next messages (*please see* col. 5, lines 18-62). Therefore, Van Bokhorst does not teach each an every element of claim 2 and claim 2 is further patentably distinguishable from the combination of cited references.

Claim 3, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Van Bokhorst in further view of Benveniste. Applicants respectfully traverse these rejections.

Claims 3-6 depend from claim 1, which has been distinguished from the combination of Walton et al. and Van Bokhorst. Accordingly, claims 3-6 are patentably distinguishable from the combination of cited references for at least the same reasons as claim 1.

Further, as stated previously, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation in the cited references to modify or combine their teachings. Applicants respectfully point to the Examiner that Benveniste clearly teaches away from claims 3-6. For example, claims 3-6 depend from claim 1, which recites using APSD frames for scheduling information and in contrast, Benveniste describes problems with using APSD frames. On page 2, paragraph 0020, Benveniste cites at least three problems with using APSD and describes an alternate scheme in which each station requests a temporal period for wake-up schedule. In fact, according to Benveniste, the temporal period is independent of beacons (*see* paragraph 0021). Therefore, Benveniste cannot be combined with Walton et al. and Van Bokhorst. Accordingly, claims 3-6 are even further patentably distinguishable from the combination of cited references.

As to claims 3-4, the Examiner has stated that "Beneviste discloses the system of claim 1, wherein the access point is further operable unicast an APSD frame to the one or more stations to alter one or more of the scheduled wake-up times of the station in response to errors on the network and to the arrival of higher priority data (Page 2, [0026])" As explained above, first, Beneviste does not even used APSD frames. Second, claims 3 and 4 recite that access point transmits the APSD frames. In contrast, in the cited section Beneviste teaches that it is the station that sends temporal period associated with a wake-up schedule. Accordingly, Beneviste does not teach or suggest limitations of claims 3 and 4.

Further as to claim 6, the Examiner has cited Walton (Col 14, lines 6-8; Col 20, line 15) as disclosing various factors for the algorithm as recited in claim 6. Applicants respectfully point to the Examiner that first, as explained above, Walton et al. does not describe using receiving power transmission and second, in the cited sections, Walton et al. does not even describe factors for any algorithm. In fact, in column 14, Walton describes antenna assignment and scheduling based on statistical distribution of data rates achieved by each terminal. Furthermore, in column 20, Walton describes constraints regarding terminal data rate requirement and not the receiving

power transmission calculation requirements. Accordingly, claim 6 is further patentably distinguishable from the combination of cited references.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Van Bokhorst in further view of Sunakawa. Applicants respectfully traverse these rejections.

Claim 7 depends from claim 1, which has been distinguished from Walton et al. for failing to disclose calculating receiving power consumption. Therefore that combination of Walton and Sunakawa cannot render claim 7 obvious. Further, in the cited section, Sunakawa does not describe aggregating low power transmissions as recited in claim 7. In contrast, Sunakawa actually totals power consumptions of all devices in the list 76 to determine the total consumption power 84. This is done regardless of the power level of the newly acquired device (*see* col. 10, lines 43-62). Accordingly, claim 7 is further patentably distinguishable from the combination of cited references.

Claim 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Van Bokhorst in further view of Bandeira. Applicants respectfully traverse these rejections.

Claims 8-10 depends from claim 1, which has been distinguished from Walton et al. for failing to disclose calculating receiving power consumption. Therefore that combination of Walton, Van Bokhorst and Bandeira cannot render claims 8-10 obvious.

Further, regarding claim 8, the Examiner has cited Bandeira, page 6, paragraph 0064. Applicant respectfully point to the Examiner that a careful reading of the cited section reveal that Bandeira had nothing to do with setting the priority of queues according to receiving power. In fact, Bandeira does not even talk about priority queues. In the cited section, Bandeira describes how a newly added node in a network determines the channel criteria based on the signal strength and noise on the channel. This helps the newly added node to determine a best SNR for the channel so that a best throughput can be achieved with minimum power. Nowhere in the cited section Bandeira discusses priority queues as recited in claim 8.

As to claims 9-10, the Examiner has given similar reasoning as claim 8. Therefore, as explained above, Bandeira does not disclose any priority queues as recited in claims 9-10. Accordingly, claims 8-10 are further patentably distinguishable from the combination of cited references.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Sunakawa. Applicants respectfully traverse this rejection.

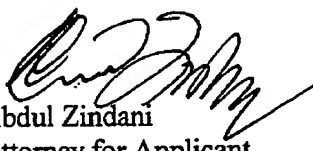
Claim 11 has been rejected in the manner of claim 1. As explained above, Walton et al. does not teach calculating receiving power consumption therefore, claim 11 is patentably distinguishable from Walton et al.

Claim 12 -19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Sunakawa in further view of Van Bokhorst. Applicants respectfully traverse these rejections.

Claims 12-19 depend from claim 11 and are patentably distinguishable from the combination of cited references for at least the same reasons as claim 11.

Applicant believes this application and the claims herein to be in a condition for allowance. Should the Examiner have further inquiry concerning these matters, please contact the below named attorney for Applicant.

Respectfully submitted,


Abdul Zindani
Attorney for Applicant
Reg. No. 46,091

Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265
(972) 917-5137